

**REMARKS OF FCC CHAIRMAN AJIT PAI  
AT TELECOMMUNICATIONS FOR THE DEAF AND HARD OF HEARING, INC.  
BIENNIAL CONFERENCE**

**NORTH BETHESDA, MD**

**JULY 27, 2017**

*[SIGN initial greeting: "Hello. Thank you for that wonderful introduction. I'm happy to be here."]*

That was my attempt to say, "Hello. Thank you for that wonderful introduction. I'm happy to be here." For the sake of clarity, I will now relinquish the signing to our capable professional. Thank you, Gerard, in advance. You know how fast I usually talk, so you've got your work cut out for you.

I'm grateful to TDI for inviting me here. It truly is an honor to be with you this morning. This week marks the 27<sup>th</sup> anniversary of the Americans with Disabilities Act. But TDI's pedigree is far older. For nearly half a century, TDI has been at the forefront of every major advance in telecommunications access—including closed captioning, hearing aid compatibility, relay services, and access to emergency services. Thanks to your efforts, there is now greater recognition of the importance of accessibility by design of products and services.

Thank you to the many other advocates and innovators with us today who have made significant contributions to improve the lives of those with disabilities. For example, I see that Dr. Christian Vogler of Gallaudet's Technology Access Program is here today. He is not only helping to develop better technology but also to shape better policy. About two years ago, Dr. Vogler and his team patiently walked me through some of the advantages of real-time text. Seeing this in-person—the ability to have a conversation in a natural way without having to wait for the other person to receive messages and respond—gave me a deeper appreciation of the potential of this technology. This could make the difference in, say, an emergency situation in which you are communicating with a 911 dispatcher. I would add that real-time text is just the latest example of technologies pioneered in your community—like video calling or standard texting—that end up being employed and enjoyed by all Americans. Of course, Dr. Vogler is just one of many people here making positive change happen. I am grateful to all of you for your work, and look forward to engaging with you today and into the future.

Finally, thank you to the FCC team that is here this morning, led by the remarkable Karen Peltz-Strauss. It's easy for me to get up here today because of the great work Karen and her team do every day. I see that my remarks will be followed by a panel with the leadership of the FCC's Disability Rights Office. I don't know if they scheduled it that way so I could be their warm-up act or so they could be my clean-up crew. It's probably a little bit of both.

I'm excited to be with all of you this morning. That's not just because I believe in your mission. It's also because we gather at a time of unsurpassed possibility for Americans who are deaf and hard-of-hearing.

Think back to 1968, when TDI got its start. You were using 18-wheelers to schlep discarded teletypewriters that weighed hundreds of pounds to the homes of deaf and hard-of-hearing people. And you were doing it so that your community could have telephone access, which everyone else had been enjoying for decades.

Today, we have mini-computers that fit in our pockets. These devices can wirelessly download life-changing applications. Instead of waiting decades to access essential communications, accessibility tools are beamed to our phones in a matter of seconds.

Consider the AVA app. This app uses the microphones on cell phones to transcribe a conversation among multiple people in real-time. It then displays the text of this conversation on your phone. By getting a group of co-workers to use the AVA app, a person who is deaf or hard-of-hearing can keep up with group discussions at the office. AVA is just one of many accessibility innovations to be recognized by the Chairman's Triple-A Awards, which I'll discuss later.

This is just one advance. One look at the lineup for this week's conference reveals that we are on the cusp of many others. For example, there are discussions teed up on the Internet of Things and self-driving cars. And I know I'm not the only one excited by the session on holograms of sign language interpreters. The last time a hologram got me that fired up, I was a kid watching R2-D2 project that iconic image of Princess Leia for the first time.

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The FCC is determined to be TDI's partner and meet this moment. And so this morning, I'd like to walk through the Commission's multi-part strategy for improving the lives of Americans with disabilities through communications technology.

The first part of this strategy is pretty straightforward: to uphold our legal obligations to promote accessibility and to advance new rules when appropriate. I've only been Chairman for six months, but we've already taken multiple steps to meet this charge.

One area where I'm excited that we've made progress is in improvements to video relay service (VRS). I recently saw a great example of the power of VRS. In San Francisco, there's a Neopolitan pizza restaurant called Mozzarella. It's become notorious not only for having some of the most popular pies in the area, but also for being owned by a deaf entrepreneur and operated by an all-deaf staff. One of the biggest reasons Mozzarella has been able to flourish is that video relay service allows them to take carry-out and delivery orders by phone—a must for any pizza joint. Instead of a ring, flashing lights signal incoming calls, and the relay service is so seamless that customers often don't learn they've ordered from a deaf-run business until they pick up their food.

The FCC is working to make sure deaf Americans across the country can benefit from VRS just as Mozzarella has.

In March, we adopted new rules to improve the quality and efficiency of video relay services to ensure that deaf users experience telephone service that is functionally equivalent to voice services. We did this in direct response to consumer requests. Among other things, we set up a skills-based routing trial that I first pushed for more than four years ago. With skills-based routing, a VRS user can ask for a specialized VRS interpreter who is trained in areas a typical interpreter might not necessarily be equipped to translate—notably legal, medical, and computer issues—which I hope will bring increased functional equivalency to some of life's more sensitive conversations. And we are also launching a second trial to track the ways that qualified deaf interpreters assist hearing interpreters.

The FCC's order also requires the public release of each VRS provider's speed-of-answer history in order to help users comparison shop among VRS services. And it allows hearing people who know ASL to obtain ten-digit video phone numbers for direct-dial video calls to deaf friends, family, and colleagues.

At the same March meeting, the FCC also began to explore ways to measure the quality of VRS, so that both the agency and consumers can evaluate competing services. FCC staff will share more about the types of information that we want to gather a bit later this morning.

We are also serious about VRS interoperability, because deaf and hard-of-hearing individuals should be able to make calls through any provider to any provider. Consumers have been waiting nearly

a decade for such full interoperability. We're happy about the steps the Commission has taken this year, it's finally becoming a reality.

In addition to relay services, we're exploring ways for you to have more direct access to communications with the people you call. For example, we are looking at advances in automatic speech recognition programs as a less expensive and superior supplement, and perhaps replacement, for communication assistants who relay text communications.

Finally, we adopted new rates for all forms of Telecommunications Relay Service, to ensure that this program provides functional equivalency in the most efficient manner possible.

So, that's improvements to relay services. Another FCC priority has been to improve access to television shows. Just two weeks ago, we adopted rules expanding our requirements for television programs to have video description. We increased by 75% the amount of programming that must be described, to 87.5 hours per quarter on each covered network or channel. We all know that captioning is essential to understanding the audio track of a program for Americans who are deaf and hard-of-hearing. In a similar way, video description is necessary for people without sight to follow the visual cues of comedy, drama, and suspense in television programs.

Of course, advancing the public interest doesn't always require adopting new rules. That's why part two of our accessibility strategy is encouraging the private sector to make accessibility a priority, rather than an afterthought.

On this front, one of the most encouraging developments we've begun seeing—perhaps more important than any particular technology—is the fact that devices like smartphones have begun incorporating accessibility principles from the get-go. Accessibility by design helps those with disabilities stay as current as everyone else when digital, Internet, mobile, and other technologies are developed. It's also so much easier and cheaper than retrofitting products after the fact.

The most effective driver of accessibility by design is a functioning market where industry works to meet consumer demand. When you consider an estimated 48 million Americans have a hearing disability, roughly 15% of the population, the market incentives are already pretty strong. And while government is no substitute for private-sector leadership, we can encourage and engage with industry.

The FCC's Disability Advisory Committee, of which TDI and many of you are active members, provides a great example of how this can be done. The DAC, as it is known, just began its second term. It's exploring a wide variety of issues, including ways to measure the quality of VRS and other relay services; how to support real-time text in emergency communications systems and relay services; and how to make real-time text accessible to deaf-blind individuals.

Our DAC membership is impressive and diverse, and I want to personally thank Claude Stout for his magnificent service as co-chair of the inaugural term of the DAC. We look forward to making use of the DAC's expertise many issues, like the impact of network transitions on Americans with disabilities and access to 911 emergency services as Next-Generation 911 is rolled out.

In addition to direct engagement, the FCC promotes private-sector innovation by shining a spotlight on industry leaders. This June, I was honored to present the Chairman's Awards for Advancement in Accessibility, the Chairman's Triple-A I mentioned earlier. With these awards, the FCC recognizes outstanding innovations by individuals, organizations, academics, companies, and governments—innovations that improve the lives of those with disabilities.

One of this year's honorees actually speaks directly to the challenge of accessibility by design. The "Teach Access" initiative is bringing together industry, academia, and advocates to expand the quality and quantity of undergraduate technology programs that teach the fundamentals of accessibility.

This effort is especially exciting to me because its founding members include both major technology companies and university partners such as the National Technical Institute for the Deaf.

But we can only recognize initiatives that we are aware of. So if you know of anybody doing great work in this space and deserving of recognition, let us know.

A third way that the FCC aims to promote accessibility is to lead by example. We are seeing real success with our direct video calling program—also called DVC. About two years ago, the FCC became the first federal agency to use interactive broadband video to handle calls to our customer call center from individuals who use American Sign Language. These calls are more private, and more than half of the issues raised during these calls are resolved right on the spot. Unsurprisingly, the number of people who use DVC to reach us has increased significantly.

In addition, we produced an open source technology to make it easier for other customer call centers to handle video calls directly from consumers.

To help encourage corporations and government agencies to use DVC technologies, I have tasked members of the FCC's Intergovernmental Advisory Committee, made up of state and local governments, with looking into potential applications for direct video calling to better serve their deaf and hard-of-hearing constituents. For example, state and local governments can use this feature for telehealth calls, contacts to public-transit centers, and governmental information 311 lines. I also understand that several businesses here today have explored the use of DVC either as a service provider or user of this technology. To me, this is what the future is all about—exploring ways that people with disabilities can benefit from using off-the-shelf, mainstream technologies, rather than specialized ones. This is easier and cheaper. And it better ensures that consumers with disabilities can use technologies as they are developed for everyone else.

In a more recent development, our Disability Rights Office is building an online ASL video library, which will make information about our disability rules more accessible. If you go to our FCC YouTube channel, you will already find two such videos—one on new rules governing VRS, and the second on our ASL customer support line.

Bottom line: When it comes to accessibility, the FCC is practicing what we preach.

The fourth and final piece of our accessibility agenda might not strike you at first as relevant to accessibility. But our work to bridge the digital divide is critically important to Americans with disabilities. We are aiming to connect every American with digital opportunity regardless of who they are or where they live.

This matters a lot if you have a disability. For you can't take advantage of many of the latest accessibility tools if you can't get online. Think about real-time text, for example. RTT is essentially the migration from an old platform, like SMS or TTY, to a new, Internet Protocol-based platform. People who are deaf and fluent in ASL cannot access VRS or video remote interpreting if they can't get high-speed Internet in their homes. People without broadband also can't take advantage of other types of Internet-based relay services.

Another big reason we need to think of the digital divide as an accessibility issue is that Americans with disabilities disproportionately find themselves on the wrong side of that divide. An April 2017 analysis by Pew found that Americans with disabilities are about three times more likely to say they never go online than those without a disability. More than 40% of Americans with disabilities don't have broadband at home. This is unacceptable. And so I promise you this: under my leadership, there is not now, and there will not be, any higher priority at the FCC than making sure every American who wants Internet access can get it.

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I'd like to close on a more personal note. Earlier, I spoke about how we are living in a unique time—a time in which we can lift up the lives of those who are deaf or hard-of-hearing.

When I think about this opportunity, I can't help but think about my aunt—my father's oldest sister. She was born deaf in India in the 1930s. As you can imagine, promoting accessibility in communications for people like my aunt wasn't exactly a high priority in those days, particularly in a poor developing country.

But somehow, she managed. She invented her own sign language. She had signs that “named” each of her six siblings—some based on how they walked, or combed their hair, or other characteristics. Her siblings, in turn, each learned her personal sign language. But of course, few if any outside of the immediate family did. Even I remember having to have an aunt or uncle translate when she interacted with me. So her world was much more limited than that of my dad or his brother or other sisters.

Sometimes, I think about how much richer her life would have been if she had lived to see today—if she could have enjoyed some of the technologies and services I've mentioned. What I wouldn't give for her to have the opportunity to use today's advances! What thoughts could she have expressed? What memories could she have built through movies and TV shows? What greater understanding could she have had of the larger world? What deeper connection could I, her nephew, have had with her while she was alive? Her name was Mohini Pai, and I will always remember her and the moral of her story.

Today, we in America have that opportunity. We have the opportunity to help improve the life of anyone with a disability through communications and technology.

Let's make sure we don't let this opportunity pass—for our aunts, our parents, our siblings, our spouses, our children, our friends – and ourselves. We will only meet this moment by working together. So let's go ahead together. [*SIGN: Let's go ahead together.*]